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ABSTRACT

Three developmental approaches to teacher education are examined in an effort to determine a coherent theoretical framework of criteria for evaluating the effectiveness of education programs. The first is discussed in terms of the development in a teacher of concern for student achievement and increasing willingness to be flexible in adapting new innovations that may improve student learning. The second approach to teacher development is based on the application of scales designed to identify the ability to take multiple perspectives, to be empathetic, and to employ principled moral reasoning. The third developmental approach to teacher education seeks to produce teachers who are nondirective, and who will promote developmental growth in children. The rationale for each of these approaches is discussed and the justification of each by leading proponents is presented. A critique of all three approaches is offered. (JD)

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Basing Effectiveness Criteria on Theories of Teacher Development

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Feiman, S., & Floden, R.E. A consumer's guide to teacher development. Journal of Staff Development, 1980, 1(2), 126-147.

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Floden, R.E., & Feiman, S. Problems of equity in developmental approaches. (Res. Ser. 91) East Lansing: Institute for Research on Teaching, Michigan State University, 1981.

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Abstract

A perennial problem in teacher education is the establishment of criteria of effectiveness. In a previous paper, the authors identified three approaches to the use of developmental concepts in teacher education research and practice. Explicit and implicit criteria of effectiveness are drawn from each of these three approaches. Justifications for the criteria are explicated within the framework of the corresponding approach. Finally, the criteria and their rationale are critically discussed, drawing on critiques of developmental theory and practice in other fields.

Basing effectiveness criteria on theories of teacher development

Robert E. Floden and Sharon Feiman

Introduction

Any attempt to improve or evaluate an educational program must attend to the program's goals. Without some idea of these goals, one cannot make defensible decisions about program change, nor can one see how to use evidence of program outcomes to justify claims of program success or failure. Research designed to improve program performance must also consider program goals to choose appropriate dependent measures.

The program goals can be described as criteria for program effectiveness. One can say that the program has been effective if specific criteria are met. For example, the effectiveness for a program to prepare typists might be a specified minumum number of words typed per minute and no more than some specified number of errors per page. Teacher effectiveness research may be seen as the search for predictors of effective teaching, where the criteria for effective teaching are pupil gains on standardized tests of reading and mathematics.

One inhibitor to the improvement and evaluation of teacher education may be unclarity (or perhaps confusion) about the criteria for effective teacher education (Lanier & Floden, 1978). For at least the past forty years, we have seen repeated cycles of passionate pleas for serious thought about the goals of teacher education (with accompanying head-nodding from teacher educators and researchers), flurried attempts to develop lists of goals, and criticism that the lists do not have any firm basis. We are now at the end of a recent cycle under the name of PBTE or CBTE. In this cycle, a basis for some criteria of effective teacher education has been found in the literature of research on teaching.

But the research basis can only support a fraction of the range of goals of a teacher education program. Even these research based criteria may be open to question. At the very least, attempts must be made to define and defend other criteria of effectiveness, whether as a supplement or a replacement to the research based criteria (Floden & Lanier, 1979).

Perhaps such criteria can be found in the literature on teacher development. Particularly in the past decade, several groups of researchers and teacher educators have advocated a shift to a developmental approach in the study and practice of teacher education. In the broader educational community there has been a concomitant shift from the rhetoric of teacher training to that of staff development, though the extent of a conscious change in meaning is not always clear.

In a recent review of the literature on teacher development, we identified three distinct approaches (Nemser & Floden, 1980). Each will be described later in this paper. They may be distinguished by their associated groups of researchers and practitioners. The first approach grew out of Frances Fuller's work at the University of Texas, and has been extended by Gene Hall and his associates in Austin. The second approach has been elaborated mainly by the faculty of the Department of Psychoeducational Studies at the University of Minnesota, and by their students. The third approach is associated with a geographically more widely dispersed group, primarily the leaders of Teachers' Centers.

In this paper we critically review the criteria for effective teacher education explicit or implicit in each of these approaches to teacher development. We proceed through each approach in three steps:

specifying the criteria, describing the way in which the criteria are (or might be) justified from within the approach, and critiquing the criteria and their justification.

We approached this task with the hope that we might find at least one set of criteria that would exemplify what we think is needed -- defensible criteria for effective teacher education. Such an example would not imply that all teacher education programs should adopt these criteria, but rather that every program should have criteria, and furthermore should be able to articulate a defense of their criteria. We will show that we were disappointed in our hope.

Our second hope in approaching the task was that we would be able to provide a balanced assessment of the promise of the movement to teacher development. Education is a field prone to the joys and disappointments of bandwagons. As each new idea emerges, it is seen as the solution to myriad problems, but later disappointments lead to uncritical rejection of all aspects of the idea. We see some worthwhile facets of the developmental approach to teacher education, but fear that the approach has serious limitations. We hope that an early, clear appreciation of the weaknesses of the approach will allow its strengths to survive once the novelty has worn off. The recent surge of criticisms of prominent theories of psychological and moral development makes a consideration of the deficiencies of teacher development particularly timely.

Fuller & Hall

The first approach grows out of Frances Fuller's description of the stages that people pass through as they gain experience with teaching.

Fuller's early work described the changes in concerns of individuals in pre-service teacher education and in the early years of teaching. Gene Hall and his collaborators have adapted the stages of concern to the adoption of innovations by inservice teachers, and have added the dimensions of levels of use and configuration of implementation.

Criteria. Criteria of effectiveness can be described in terms of three dimensions of development: stages of concern, level of use, and configuration of implementation. The work of both Fuller and Hall includes the first dimension, while only Hall considers the other two.

The most desirable stages of concern are those related to impact on the students. At this stage the primary concerns that teachers have are that what they are doing in the classroom affects students and that they are able to see these effects. These concerns are contrasted to concerns about survival as a teacher (Can I control the class? Does the principal think I'm doing a good job?) and concerns about the teaching tasks (Did I present the lesson in the way I was suppose to? Can I work this math problem without making a mistake?), (See Fig. 1).

> When concerns are "mature", i.e., characteristic of experienced superior teachers, concerns seem to focus on pupil gain and self evaluation as opposed to personal gain and evaluations by others. The specific concerns we have observed are concern about ability to understand pupils' capacities, to specify objectives for them, to assess their gain, to partial out one's own contributions to pupils' difficulties and gain and to evaluate oneself in terms of pupil gain (Fuller, 1969, p. 221).

For Fuller (and also for Hall) a major goal of teacher education is to move teachers to the stage of impact concerns. "Our objective is to mature the concerns of students, that is, to move undergraduate education students from concerns about themselves toward concerns about pupils" (Fuller, 1970, p. 4).

In Hall's work, the levels of use run from lack of knowledge about an innovation, through acquiring information about the innovation, to mechanical use of the innovation, routine use of the innovation, and finally refinement on one's own, integration with the efforts of colleagues and search for alternatives. (See Fig. 2). Unlike the stages of concern, however, Hall is ambivalent about trying to move teachers toward the latest stages. In terms of implementing the innovation, the level of routine use is seen as more desirable than prior levels. It is not clear that the later levels, in which the teacher modifies the innovation for various reasons, are preferable to routine use. A clear criterion for effectivensss in the adoption of the innovation is getting the teachers at least to the level of routine use.

The final dimension considered in Hall's work is the configuration of implementation. This dimension is a continuum (rather than a sequence of stages or levels) running from an exact replica of what the innovation's developer envisioned, through various possible modifications of the developers model, to something that in no way resembles the innovation. At some point along this continuum, one crosses the "point of drastic mutation" after which whatever the teacher is doing would no longer be appropriately called implementing the innovation. In some papers, Hall suggests that the criteria of effectiveness along this dimension is to have the teacher implementing the innovation exactly as the developer intended it. For example, in discussing implementation of a new science curriculum, he refers to "teaching science at a high quality (Impact concerns, ideal configuration)" (Hall, 1978, p. 26). At other points, the issue of the preferability of any point along this continuum seems less clear (Hall & Loucks, 1978).

Justification. The goal of impact concerns is primarily defended by an appeal to the common sense notion that it is good for teachers to be concerned about student learning. "An important task for teacher education is to help teachers to implement their concerns about pupils since better teaching is probably associated with concerns about pupils rather than concerns about self" (Fuller & Bown, 1975, p. 40). Hall appeals to common sense as well, but explicitly links impact concerns to pupil learning, rather than making global reference to good teaching. He says that "the professional development of individual teachers...will ultimately result in higher quality learning for children" (Hall & Loucks, 1978, p. 53). No empirical data are presented to substantiate the link between concerns about impact and student learning, but recent evidence of the correlation between a teacher's sense of efficacy and student achievement is suggestive.

The effectiveness criterion of routine level of use may be defended both by appeal to common sense and by appeal to empirical research. Since Hall's work is cast in terms of investigating the implementation of an innovation, it seems quite reasonable that at least routine use of the innovation is desired. The levels of information gathering and planning certainly don't count as cases of implementation, and mechanical use is, by definition, often "disjointed and superficial" (Hall, 1978, p. 14), a situation that seems clearly less desirable than stable, smooth performance. Hall supports the adoption of innovations as a goal by asserting their general value. "In education, we have very few really bad innovations; there are many very good innovations that have not seen the light of day" (Hall, 1978, p. 34).

Though little research has been done to examine the link between level of use and student learning, there is some evidence that routine use has desirable consequences for student learning. In a study of the implementation of an individualized instruction, student achievement in mathematics increased as level of use increased. Achievement in reading increased up to the levels of mechanical and routine use, but then decreased as teachers began to modify the innovation, i.e., to move to the later levels of use. Hall's apparent ambivalence about levels of use beyond routine is supported by these data.

The common sense rationale for not chosing a level beyond routine use for an effectiveness criterion is that teachers as these later levels may modify the innovation so that it takes a configuration farther from the ideal. The justification for chosing the ideal innovation configuration as a criterion of effectiveness is apparent when one considers that Hall and his associates are casting their work in the context of the adoption of innovations. By definition, the ideal configuration of implementation is the one that most closely, i.e., perfectly, resembles the innovations to be implemented. Hence, any departure from the ideal configuration indicates a partial failure to implement the innovation. If you want to implement an innovation, one criterion of effectiveness is that what is actually implemented is the relevant innovation.

Critique. A difficulty with the criterion of impact concerns is the variation it allows regarding what sort of impact the teacher hopes to have on the students. Teachers who have such concerns might range from those hoping students learn grade level facts and skills to those hoping to produce self-motivated learners. This criterion also does

not distinguish a teacher education program that gets teachers to brainwash their students from a program that gets teachers to instill in students an appreciation for reasonable argument. The programs would be equally effective as long as they both produce teachers concerned that pupils are affected by instruction.

Room for variation need not be a problem if the criterion for effectiveness is supplemented by other criteria regarding the appropriate sorts of impact and the desirable means of achieving that impact. There is great danger, however, in giving too much emphasis to impact concerns, lest the importance of other aspects of teacher education be ignored. Only extreme relativists would say that no judgments of appropriate educational content (or methods) can be made and that the criterion of impact concerns can stand on its own.

How important is it to establish an empirical link between impact concerns and pupil achievement? If impact concerns are only seen as desirable because of a presumed link to student achievement, then this criterion holds no privileged position relative to the many other things presumed to enhance achievement, e.g., enthusiasm, knowledge of subject matter, ability to maintain order. In that case, empirical investigation plays a prominent role in the justification of this criterion. Perhaps, though, Fuller's link between "better teaching" and impact concerns goes beyond increases in student learning. It seems strange to say that someone is a good teacher, but doesn't care whether students learn anything. Likewise, it seems reasonable to say, "Students learn a lot from him, but he isn't a good teacher--he doesn't care about students' learning." If caring about impact on students is part of what we mean by good teaching, then the status of impact concerns as a criterion for effective teacher education is not dependent on

empirical investigation.

The criteria associated with levels of use and with configuration of implementation (and indeed the use of stages of concern in Hall's work) are problematic in the their relationship to teacher education. These criteria seem reasonable for judging whether a district curriculum office has been successful in promoting the adoption of new curricular materials or a new teaching approach. But it makes little sense to say that getting an innovation adopted is teacher education, or especially to talk of it as teacher development. (It should be noted that Hall and his associates are seldom--if ever--guilty of proposing their ideas as a way of desribing teacher development. Particularly because of their roots in Fuller's work, however, those reading Hall's work often make the connection.) Though adoption of some innovations may be accompanied by profound changes in teachers, Hall's general model does not imply any changes in teachers, beyond the change that the teacher is capable of using different materials or a different technique. As far as trying to make positive changes in teachers (which seems certainly a part of teacher education) the only connection with adoption of innovations would seem to be the ability to quickly adapt to whatever innovations are pushed this year. Cooperative and quickly malleable teachers make it easier to rapidly achieve the criteria of effective innovation adoption.

A troublesome aspect of this entire approach is the removal of curriculum decision making responsibility from the teacher and giving it to the developers of innovations. Staff development is seen as a process for getting teachers to adopt externally determined methods and goals. One clear illustration of this removal of responsibility is found in a recommendation to avoid discussing an innovation with a

teacher in terms of its benefits for students. "The change facilitator should downplay the consequences of the innovation for students" (Hall, 1978, p. 11). While this may be the best way to get the innovation adopted, it certainly will not do much to increase the role of the teacher in deciding whether the innovation, or indeed the intended outcomes of the innovation, are worthwhile. The justification for this approach appears to be that teachers are people whose job it is to implement innovations, rather than autonomous professionals. This assumption is controversial, and is hidden by the description of teacher's professional development in terms of stages of concern or levels of use.

More troublesome from the perspective of our search for criteria based on a model of teacher development is that none of the justifications for the criteria depend on the developmental model Fuller and Hall have constructed. The reasons for hoping that teachers will have impact concerns are not dependent on the sequence of progressively resolved stages that have been empirically documented. If for example, the model has turned out quite differently, with teachers beginning with impact concerns and later moving to concerns about themselves (Will I get that raise? Do I have a chance to become a principal?), the criteria of effectiveness would not change. One would still prefer to have teachers with impact concerns, even though these teachers are less developmentally "mature". This is not so much a criticism of the theorists as a failure for them to provide what we had hoped to find--goals for teacher education defended in terms of a clear theoretical (developmental) framework. Other parts of the critique listed above do raise doubts about the adoption of these criteria of effectiveness. The criteria seem at once too general and too much dependent

on the idea of teachers as technicians.

Sprinthall & Erickson

The second approach to teacher development has been most clearly articulated by the faculty of the University of Minnesota, Department of Psychoeducational Studies (particularly Norman Sprinthall and Lois V. Erickson), and by their students. These individuals have advocated a theory of teacher development based on the application to teachers of developmental theories of Kohlberg, Loevinger and Hunt.

Criteria. In this approach several different sets of criteria for effectiveness are mentioned at different points. The sets of criteria are seen as being inter-related, but it is not always clear what sort of relationship exists among them. For example, a set might be seen as desirable because it is thought to lead to another set. Or one set might be taken as synonomous to another set. The specific ambiguities will become clearer as the different sets are discussed below.

First, a criterion for effective teacher education is movement toward a higher stage of development on one or more of the developmental scales applied. These scales are drawn from the work of Kohlberg on moral reasoning, Loevinger on ego development, and Hunt on conceptual level. To oversimplify for the moment, each of the theories applied sees higher stage people as more able to see the perspectives of others, to think complexly and to act autonomously, rather than in conformance with norms established by others. (See Fig. 3 and Fig. 4)

Second, effective teacher education will produce teachers who are able to make multiple perspectives, to be empathic, and to employ principled moral reasoning. Here is a case of unclear relationships.

This set of criteria is stated separately, but seems to have clear overlap with the set above. Is this second set seen as desirable because of its association with higher stages? Is the first set worthwhile because it is believed that higher stage people are more likely to be empathic, etc? Is it assumed that you can't be empathic unless you are at a high stage? These relationships must be understood if some subset of the criteria is selected.

Third, effective teacher education will produce teachers who are non-directive, non-authoritarian, indirect and use many teaching models. The same questions about relationships arise here.

Fourth, effective teacher education will produce teachers who promote developmental growth in children. Again, is this the ultimate goal to which all the goals above are means? The literature never makes this clear.

These four sets of goals are assumed to be strongly associated with one another. If it is the case that achieving one set ensures that you achieve all the rest, then no problem arises. But if the sets are logically and empirically distinct, it will be important to sort out which sets are the ultimate goal, and which are merely possible means to reaching that goal. Or are the four sets all held to be worthwhile in their own right?

Justification. The criteria in terms of higher developmental stages are often justified by reference to Dewey, "If we know what development is, then, with Dewey and others, we know something of what education ought to be" (Sprinthall, 1978, p. 14). That is, more advanced developmental stages are better, and hence should be taken as educational goals. This theme is also supported by favorable references to Kohlberg and Mayer (1972), who argue that progress to higher

developmental stages is the only defensible educational goal. The other sets of criteria listed above are implicitly justified by this rationale, since higher stage individuals have the characteristics described in the other sets. This is thus a justificatory argument that assumes developmental level as the central goal, and other goals are valued as epiphenomena.

The criteria in terms of higher stages are also defended on the basis of empirical studies relating developmental level to measures of teacher effectiveness. The most prominent studies in this area are those reported by Harvey, Hunt and Schroeder (1961). They indicate that teachers at a high conceptual level are more adaptive, flexible, creative and tolerant. Higher stage teachers have also been shown to be more indirect.

A developmental approach to teacher education is also defended by pointing to the need for a new paradigm in teacher education. Particular repeated reference is made to Shutes (1975) conclusion that the improvement of teacher education requires a guiding theoretical framework.

Finally, Hurt and Sprinthall (1976) cite problems in American education ranging from the loss of intrinsic pupil motivation to the degeneration of much of much of schooling to mindless routine, and assert a connection between these ills and the ineffectiveness of teacher education programs in terms of developmental stage criteria. "It is our view that the reasons for the dire effects of schooling denoted at the beginning of this article are derived from the modest levels of cognitive and moral development of classroom teachers" (Hurt & Sprinthall, 1976, p. 118).

The criteria of empathy and the ability to take multiple perspectives are defended in terms of effects on pupils. It is argued that teachers with these characteristics will be most likely to meet the needs of diverse children.

Critique. The individuals taking this second approach are far from the first to use the argument that later developmental stages must be better (and hence worthy goals). But the argument remains subject to a criticism also raised many times before. To say that a later stage is better is to commit what philosophers call the genetic fallacy. This fallacy can easily be seen by considering cases such as physical changes in the human body over the lifetime. One might argue that changes early in life are all to the better, but one would hardly continue the argument to conclude that lapses of memory associated with old age are desirable and should be taken as educational goals. Perhaps when we know what development is we know something about what education should be, but it doesn't follow that education should attempt to promote developmentally later stages of growth.

A major difficulty with the empirical work cited to support the criteria of this approach is that the description of effective teaching associated with high conceptual level is itself open to question. In fact, some of the empirical studies only show relationships among the various sets of criteria for this approach. Are the empirical studies then to be taken as confirmations of the logical consistency of the sets of criteria, or as evidence for the value of the criteria advocated in this approach? The importance of the criteria of effective teaching used in the empirical studies is underlined by the use of Flander's indirectness as evidence of effective teaching. That is, Sprinthall and others defend their goals for teacher education by reference to data showing

that teachers at high developmental stages are more indirect. The difficulty arises because indirectness is now seldom considered a desirable teaching characteristic. The link to indirectness might be considered a fault of the criteria, rather than a strength.

The need for a new paradigm in teacher education seems plausible enough. Our paper is indeed a search for examples of theoretical frameworks that could be used to support specific criteria for effective teacher education. The difficulty, of course, is that granting the need for a new paradigm does not speak for any particular new paradigm. Just because this second approach presents a new paradigm for teacher education doesn't mean that it is the new paradigm that should be selected. Indeed, one can admit to the desirability of change to something better without feeling compelled to move from the old paradigm until a new one has been shown to be at least as good as the old, if not better.

The link to the dismal state of education is an empirical speculation as yet unsupported.

The link to being able to meet diverse children's needs seems reasonable. It is an empirical question, and one that would profit from research. One difficulty to be avoided is defining children's needs in such a way that the results can be perfectly predicted. If, for example, children's needs are defined as what seems most desirable from their perspective, and greater ability to meet needs is measured by ability to identify needs, then it is a trivial claim to say that teachers who are better at taking the perspectives of others will be better able to meet the needs of diverse children. If meeting needs of diverse children is, on the other hand, defined in some way independent of multiple perspectives of the children, then the empirical question

regains its interest (and also its importance).

Overall, the criteria in this approach suffers from a lack of specificity to education. They may do quite well as goals that everyone as an individual would like to reach. But should not the criteria for effective teacher education in some way relate to the teacher in the role of professional? At the least, should not the defense of the criteria for teacher education make some reference to teaching and learning, rather than merely to general desirability?

When the justifications for criteria for this approach do make educational references, they seem to have little relationship to the supposed developmental underpinnings. Conversely, the defense that seems developmentally grounded has little specific relationship to education, let alone to teacher education. Again, our search for criteria for effective teacher education with a firm theoretical basis has been disappointed. Also, as in examination of the first approach, the more general consideration of the criteria advocated by the appoach has raised serious questions about desirability, independent of the fact that a neat logical structure is absent.

Advisors and Teachers' Centers

The third approach has been put forward by diverse groups of people most of whom were associated with either the active learning curriculum projects of the sixties or with the movement to promote concepts from the British infant schools in American education. The approach to teacher development can been seen as the justification of teacher education practices that closely parallel the practices that open educators take with elementary and secondary school students.

Criteria. As is the case for open education programs for children, the criteria for teacher education effectiveness often include process goals as well as outcome goals. That is, the program can be judged successful if the teacher educators are successful in creating a particular sort of learning environment, without examining explicitly the consequent changes in the participating teachers. To take an example from a different area, a process goal for an elementary mathematics class might be that every student practices addition facts. A product goal would be that students' speed in recalling addition facts increases. It is not what you learn, but how you learn that is important.

Some of the process goals are:

1. "Be responsive to teachers' own definitions of their continuing learning needs, rather than to school administrators', college professors', or curriculum committees' imposed agendas" (Devaney, 1977, p. 150);
2. Have the teachers "reacquaint them(selves) with the experience of being exploratory learners" (Devaney, 1977, p. 151);
3. Stimulate, support and extend the teacher in self-determined directions;
4. Introduce teachers to alternatives and provide support for change; and
5. Build on teacher's motivation to take curricular responsibility.

For each of these goals the corresponding criterion of effectiveness can be expressed in terms of the process of teacher education, rather than in terms of the outcomes. For example, the second goal would be met if the teachers in a program experienced active learning, even if the teachers' behavior and thoughts were not affected by the experience. (Most proponents of the approach assume that the teacher will be affected, and the goal may be defended in terms of likely outcomes. Still the criteria for success refers to getting the process right, not to achieving the desired changes in teachers).

Product or outcome goals are also expressed by advocates of this third approach. Broadly speaking, the teacher education will have been successful if the participating teachers closely resemble open educators in their teaching. More specifically, the teachers will:

6. "Diversify the focus in the classroom" (Devaney, 1977, p. 151) (different activities and goals for different children);
7. Think about the reasons for curricular choices, rather than just thinking about procedures to be followed (move from the how's of teaching to the why's of teaching);
8. Learn to make classroom decisions, not follow orders of others in the school system;
9. Collaborate with other teachers; and
10. Understand how children learn.

Justification. The justification for these criteria has three aspects. First, and perhaps most important to the teacher educators who take this approach, there is a theoretical (or ideological?) basis in the open education movement for children, and going back at least to the writings of John Dewey. Second, there is empirical evidence for the effects of open education on children and on teachers. Finally, there is empirical evidence on the effects of approaches specifically within this developmental approach to teacher education.

Dewey and Piaget are the educational theorists most often cited to support the notion that education is an active rather than a passive learning process. This idea is used to support a process of teacher education that places the emphasis on the teacher's own directions for growth and own expressed needs. It is also a rationale for providing a supportive and stimulating environment, rather than trying to teach specific content. Trying to teach specific content assumes that the teacher is a passive recipient of knowledge, rather than an active learner.

The emphasis on active learning also provides general support for measuring successful teacher education in terms of teachers' resemblance to open educators. The open education approach is seen as most appropriate to the idea that children are active learners. Hence, the teacher educators hope to improve children's educational experiences by getting teachers to acknowledge the active learning of their pupils. Specifically, this supports the product criteria of diversified focus and understanding how children learn. It provides indirect support for emphasis on the why's of teaching and learning to make classroom decisions. Unless teachers think about the purposes of instructional activities, and furthermore act on their convictions, they cannot be tailoring the curriculum to the specific interests and learning styles of the children. Any unthinking following of external direction or working through activities may address the interests of some children, but is virtually certain to be inappropriate for others. Again, the use of a standard curriculum for the selection of activities without attention to the purposes to be served, assumes that children are passive recipients of knowledge, and that the activities and content can be chosen without consideration of the specific individual children in <u>this</u> year's class for <u>this</u> teacher.

There is some general empirical research on the strengths and weaknesses of an open education approach. Virtually all of the literature refers to elementary and secondary school teachers and their pupils, rather than to teacher educators and the teachers with whom they work. The advocates of this third approach to teacher development make general reference to this empirical literature, both to show the value of the product effectiveness criteria, and to support the idea that teachers who receive this treatment will themselves become active learners.

They assume that teachers who are active learners will tend to act more like open educators.

Finally there are a few evaluations and research studies that look at this third approach to teacher development and its effects. These include an external evaluation of Lillian Weber's Open Corridor Program and the study by Bussis, Chittenden and Amarel (1976) of advisory programs. While advocates of this third approach find these empirical studies encouraging, they feel that empirical investigation of the approach has barely begun. They express need for such research, and admit that the existing empirical base is still extremely sparse.

Critique. The classic problem for educational theories that emphasize self-directed learning is that even the theorists may not be willing to consistently support all directions the learning may take. The underlying assumption for process goals of building on interests and providing support is that the learning that results will be worthwhile, though not predicatably aimed toward some narrow range of content. The assumption is, of course, controversial, and difficult to accept without empirical verification.

The advocates of this third approach to teacher development show such ambivalence. They advocate process goals and emphasize the likelihood of large differences among the learning for different teachers. But at the same time they hope, and sometimes assume, that for many teachers the direction of growth will be toward an open education approach. It seems that they gauge their effectiveness both by the learning climate created, and by the degree to which teachers who are emersed in this climate will grow toward reflecting on their educational purposes and taking responsibility for curricular decisions. Whether these two goals are coextensive is a question

for further study.

It may also be that part of any observed tendency toward open education among teachers educated using an approach meeting the process goals is due to the fact that teachers working with advisors or going to the Teachers' Center are already inclined to open up their classrooms. Indeed advocates of advisory programs and Teachers' Centers express considerable ambivalence about using their approach with the population of teachers as a whole. They put an emphasis on the internal motivation of teachers, and admit that not all teachers (perhaps few teachers) are motivated to change their professional practice. The importance of some match in philosophy of advisor or Teachers' Center staff and the teachers serve is supported by the research of Bussis, Chittenden and Amarel (1976), as well as by the experience of these teacher educators. Yet attempts are often made to argue the applicability to a wider population, probably due to the perceived need for a broader base of political support. Many of the early Teachers' Centers financed their operations through small foundation grants with a limited time span. If the centers are to continue their operations, other funding must be solicited, and success in solicitation may depend on arguments for the value of the program to a wide range of teachers. That value is less clear than the value to the teachers previously served. Again, additional evidence must be collected before we know whether the arguments in this approach to teacher development match the realities of current educational practice.

Finally, the value of the product goals is at least contested. Whatever the evidence for open education, it has not been sufficient to persuade even a large minority of parents and teachers that they should value an open education approach over other approaches. It is not clear to us whether the general failure to accept open education stems from an empirical basis, or from theoretical or ideological beliefs about learning. Do parents and educators reject Dewey and Piaget? Are there refutations of the arguments that link these figures to open education? Has the open education community been able to provide a clear articulation of the connection that they see, a defense of their educational goals from the theoretical framework? Perhaps we have in this third approach a potential example of the defense of effectiveness criteria from within a developmental perspective. But to this point, we have not found the defense explicitly expressed.

Conclusions

We had hoped to find among these three developmental approaches to teacher education one or more exemplars of the justification of goals for teacher education from within a coherent theoretical framework. All three approaches have criteria for effective teacher education, and some justification can be found for criteria in each approach. But we failed to find a developmentally based defense in any of the three cases. We continue to believe in the worth of defensible criteria, but we must look elsewhere for the theory that will provide a defense.

Perhaps more importantly, we have found serious weaknesses in the defenses of criteria under all three approaches. Some of the weaknesses are those common to most attempts to use developmental concepts to

provide educational goals. Other weaknesses are specific to the approaches examined. It is often difficult to find clear statements of justification for the criteria proposed; the defense must be inferred, or constructed from scratch. The wisdom of using a developmental approach to provide effectiveness criteria for teacher education seems doubtful. This may be a bandwagon that one should refrain from riding.

It does not follow that a developmental approach cannot make worthwhile contributions to teacher education. One area that may prove fruitful is the use of a developmental perspective to determine the likely effects of teacher education programs. An inservice program may not affect a teacher with concerns about self in the same way that it influences a teacher with impact concerns. Teachers at a higher stage of cognitive development may take quite different things from a graduate course in education than teachers at lower stages. Teachers who already think about the why's of teaching may learn different things from a demonstration of curriculum materials than teachers who focus on the how's. If teacher educators would benefit from a clearer knowledge of the likely effects of their instruction (and we hope that they would), then a developmental perspective may provide useful ways of using information about teachers to improve prediction of effects.

We should emphasize that individuals in the approaches discussed above have often emphasized the value of development for diagnosis, more so than they have advocated developmentally derived criteria of effectiveness. We hope that our analysis here will lead to a further de-emphasis on developmental goals for teacher education, and to greater

investigation of the possible uses of the study of teacher development for understanding how various strategies for teacher education may be effective--where effectiveness is defined and justified outside of the developmental theory.

FIGURE 1

STAGES OF CONCERN ABOUT THE INNOVATION
Movement to Impact Concerns is Goal Under First Approach to Teacher Development

Impact Concerns

6 REFOCUSING: The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.

5 COLLABORATION: The focus is on coordination and cooperation with others regarding use of the innovation.

4 CONSEQUENCE: Attention focuses on impact of the innovation on student in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.

3 MANAGEMENT: Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

2 PERSONAL: Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

1 INFORMATIONAL: A general awareness of the innovation and interest in learning more about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.

0 AWARENESS: Little concern about or involvement with the innovation is indicated.

(Adapted from Hall and Loucks, 1978; original concept from Hall, Wallace and Dossett, 1973)

FIGURE 2

LEVELS OF USE OF THE INNOVATION
Movement to Routine is Goal under First Approach to Teacher Development

Levels of Use	Definition of Use
0 NONUSE	State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.
I ORIENTATION	State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.
II PREPARATION	State in which the user is preparing the first use of the innovation.
III MECHANICAL USE	State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs that client needs. The user is primarily engaged in a step-wise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
IVA ROUTINE	Use of the innovation is stabilized. Few, if any, changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.
IVB REFINEMENT	State in which the user varies the use of the innovation to increase the impact on clients within the immediate sphere of influence. Variations are based on knowledge of both short and long term consequences for clients.
V INTEGRATION	State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.
VI RENEWAL	State in which the user reevaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

(Adapted from Hall, 1978)

FIGURE 3

KOHLBERG'S STAGES OF MORAL DEVELOPMENT
Movement to Higher Stages is Goal under Second Approach to Teacher Development

Level and Stage	What People in this Stage Think is Right
LEVEL 1-PRECONVENTIONAL Stage 1-Heteronomous Morality	To avoid breaking rules backed by punishment, obedience for its own sake, and avoiding physical damage to persons and property.
Stage 2-Individualism Instrumental Purpose, and Exchange	Following rules only when it is to someone's immediate interest; acting to meet one's own interest and needs and letting others do the same. Right is also what's fair, what's an equal exchange, a deal, an agreement.
LEVEL II-CONVENTIONAL Stage 3-Mutual Interpersonal Expectations, Relationships, and Interpersonal Conformity	Living up to what is expected by people close to you or what people generally expect of people in your role as son, brother, friend, etc. "Being good" is important and means having good motives, showing concern about others. It also means keeping mutual relationships, such as trust, loyalty, respect and gratitude.
Stage 4-Social System and Conscience	Fulfilling the actual duties to which you have agreed. Laws are to be upheld except in extreme cases where they conflict with other fixed social duties. Right is also contributing to society, the group, or institution.
LEVEL III-POST CONVENTIONAL or PRINCIPLED Stage 5-Social Contract or Utility and Individual Rights	Being aware that people hold a variety of values and opinions, that most values and rules are relative to your group. These relative rules should usually be upheld, however, in the interest of impartiality and because they are the social contract. Some nonrelative values and rights like *life* and *liberty*, however, must be upheld in any society and regardless of majority opinion.
Stage 6-Universal Ethical	Following self-chosen ethical principles. Particular laws or social agreements are usually valid because they rest on such principles. When laws violate these principles, one acts in accordance with the principle. Principles are universal principles of justice: the equality of human rights and respect for the dignity of human beings as individual persons.

(Adapted from Oja, 1978.)

FIGURE 4

INTERRELATIONS AMONG DEVELOPMENTAL THEORIES
Movement to Higher Stages is the Goal under Second Approach to Teacher Development

Kohlberg's Stages of Moral Development	Loevinger's Stages of Ego Development	Harvey, Hunt & Schroeder's Conceptual System Types
	I-1 Presocial	
1: Obedience & Punishment	I-2: Impulsive	1
2: Instrumental Relativist	Self-Protective	2
3: Interpersonal Concordance	I-3:	3
4: Law & Order		
4-1/2 or A: Anarchistic	I-3/4: Conscientious-Conformist	
5A: Social Contract Legalistic	I-4 Conscientious	4
5B: Utilitarian		
6: Conscienced or Principled	I-4/5: Individualistic	
	I-5: Autonomous	
	I-6: Integrated	

(Adapted from Oja, 1978.)

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